

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

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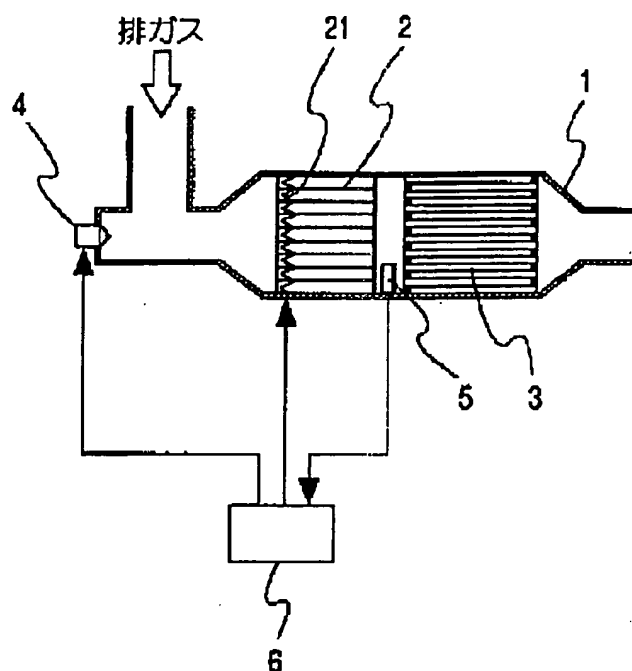
APPLICATION DATE : 15-02-96  
APPLICATION NUMBER : 08053913

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INVENTOR : TAKAGI JIRO;

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TITLE : EXHAUST PARTICULATE PURIFYING  
DEVICE FOR INTERNAL COMBUSTION  
ENGINE



**ABSTRACT :** PROBLEM TO BE SOLVED: To perform the excellent regeneration of a filter without needing a long time for regeneration and the increase of an amount of a feed power even on an operation condition that an exhaust gas temperature is especially low during idling.

**SOLUTION:** A catalyst converter 2 is arranged upper stream of a flow of exhaust gas from a catalyst carrier filter 3 arranged in the middle of the exhaust gas flow passage of the internal combustion engine and collecting fine particles contained in exhaust gas. A partial heating heater 21 to electrically generate heat and partially activate the catalyst of a catalyst converter 2 is mounted on the catalyst converter 2. When the filter 3 is regenerated on an operation condition having an exhaust gas temperature lower than a catalyst activated temperature, the partial heating heater 21 is energized to partially activate a catalyst converter 2. Further, unburnt fuel is fed in an exhaust flow passage 1, situated upper stream from the catalyst converter, by a fuel injection valve 4 and oxidized by an activated catalyst. Since a fuel feed amount is controlled to a small amount enough to allow maintenance of an activating state by the activated catalyst until the active state of the catalyst is stabilized, a device temperature is not lowered and thereafter through the increase of a fuel feed amount, an activated region is enlarged to a whole.

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